FINAL Report

Modeling TDM Effectiveness:

Developing a TDM Effectiveness Estimation Methodology (TEEM) and Case Studies for the SR 520 Corridor

Part of the
Implementing Corridor TDM Programs in the Puget Sound Region Project

APPENDIX A
SR 520 Transportation Demand Management Plan from the Trans-Lake Washington Project

Prepared for

Washington State Department of Transportation

In cooperation with U.S. Department of Transportation – Federal Transit Administration

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Appendix A

SR 520 Transportation Demand Management Plan from the Trans-Lake Project

Appendix A provides a summary of the TDM Plan developed for the SR 520 corridor in the second phase of the Trans-Lake Project.

A.1 Goals of the SR 520 Transportation Demand Management (TDM) Plan

The development of a TDM Plan for the SR 520 corridor focused on packaging a number of complementary strategies to enhance the efficiency of SR 520 by reducing the growth of vehicle miles traveled (VMT) in the overall SR 520 corridor and increasing person-throughput on the bridge since demand will exceed capacity on the bridge during peak periods for all of the proposed alternatives. In order to meet these goals, the TDM Plan is dependent on investments in roadway, transit, high occupancy vehicle (HOV) and non-motorized facilities. While the program will support and increase the benefits of those investments, it will not replace the need for roadway investments due to the high amount of currently unmet demand in the corridor.

Primary SR 520 Corridor TDM Plan Goals

1. **Reduce Growth of VMT in Overall SR 520 Corridor:**
   - Shift SOV travel to HOV travel
   - Eliminate trips or shorten distances of local travel
2. **Increase Person-Throughput on the SR 520 Bridge:**
   - Shift SOV travel to HOV travel
   - Shift trips out of peak travel periods
   - Eliminate trips

In addition to the two primary goals for the TDM Plan, other goals include:

1. Enhancing investments in roadway, transit, HOV and non-motorized facilities and services
2. Increasing the efficiency of the transportation system by:
   - Providing information that increases public awareness of alternative modes of travel
   - Providing programs and incentives to increase access to transit, HOV and non-motorized facilities and services
   - Providing staff support and incentives to link land use and transportation actions through the implementation of transportation-efficient land use

A.2 Major Elements and Focus of the SR 520 TDM Plan

The TDM Plan focuses on the transportation needs for the SR 520 corridor over the next 20 years. Although the emphasis is slightly different, the program uses the same format and categories as the TDM Plan for the I-405 corridor, in order to facilitate potential

integration of the two corridor programs in the future. The level of investment in the SR 520 TDM Plan varies depending on the EIS alternative, with 20-year costs estimated at $330,000,000 for the four-lane alternative, $285,000,000 for the six-lane alternative, and $245,000,000 for the eight-lane alternative. On September 5, 2002 the 6-lane plan was selected by the Trans-Lake Washington Project Executive Committee as the Preliminary Preferred Alternative.

The SR 520 TDM Plan consists of an oversight program supported by five major elements:

1) Public information, education and promotion programs
2) Vanpool programs
3) Employer-based programs
4) Land use as TDM
5) Other TDM Programs

Strategies within the major elements of the program were tailored for the SR 520 corridor. A major focus is on commuter incentive-based strategies, since 88% of AM peak trips and 69% of PM peak trips crossing the bridge are for commuting. There is also a focus on strategies that have been successfully implemented within the region, on the TDM market within the corridor, and on the seven target areas that make up the majority of origins or destinations on SR 520 (Downtown Seattle, Kirkland/Totem Lake, Redmond/Overlake, Downtown Bellevue/NW Bellevue, NW Seattle, University District, East Central Seattle).

A.3 Program Element Descriptions:

Oversight Program: The Oversight Program is the foundation for the full SR 520 TDM Plan. This program element provides for "adaptive management" to administer, monitor, evaluate and adjust implementation of the TDM strategies over the 20-year program period. It also includes the TDM goals supported and implemented by a corridor TDM and land use agreement, and provides for the continuation and expansion of existing TDM programs.

Estimated 20-year investment costs for 6-lane Preliminary Preferred Alternative: $20,000,000

Public Information, Education & Promotion Programs: The programs in this element complement and increase the effectiveness of all other TDM elements. These programs include a new corridor-focused information and education campaign that targets commute trips and rideshare markets, but also provides outreach for non-commute trips including markets such as little leagues and high schools. It also expands traveler information services, including some Intelligent Transportation System (ITS) strategies and other services to provide personalized trip planning to travelers in the SR 520 corridor.

Estimated 20-year investment costs for 6-lane preliminary preferred alternative: $50,000,000

Vanpool Programs: Vanpools are a proven TDM strategy in the Puget Sound area for reducing commuter trips, and are a key element of the SR 520 TDM Plan. The vanpooling element has a broader focus than the seven target areas, with a program that significantly increases vanpooling for both the SR 520 and I-90 bridges. The program will provide for extensive new marketing of public vanpool programs; assist in acquiring new vanpool vehicles; supplement permanent park-and-ride lots with a rideshare parking program; and include incentives for vanpooling such as fare subsidies, affinity products, and owner-operated vanpooling promotion.

Estimated 20-year investment costs for 6-lane preliminary preferred alternative: $35,000,000

Employer-Based Programs: This element focuses on further reduction of commute trips or shifting of commute trips out of peak periods by providing significant new support to employers and private sector programs; working to increase the use of work schedule options and ridesharing; providing additional incentives and resources for Commute Trip Reduction (CTR) and non-CTR affected employers; supporting Transportation Management Associations (TMAs); and promoting parking cashout programs.

Estimated 20-year investment costs for 6-lane preliminary preferred alternative: $75,000,000

Land Use as TDM: This element supports implementation of land use patterns that reduce or change demand on the transportation system by increasing access to transit and non-motorized facilities and services, or by shortening the length of vehicle trips. This element would provide support programs for local jurisdictions and developers; incentives for jurisdictions, developers and businesses; and funding for local connectivity projects.

Estimated 20-year investment costs for 6-lane preliminary preferred alternative: $45,000,000

Other TDM Programs: The components of this element enhance the effects of the other elements but do not fit into one category. This element provides innovative fare media; non-commute trip TDM programs; incentives for freight and commercial vehicles; custom bus services; and funding for demonstration projects.

Estimated 20-year investment costs for 6-lane preliminary preferred alternative: $60,000,000

Total Estimated 20-Year Costs for 6-lane Preliminary Preferred Alternative: $285,000,000

Costs are based on historical costs for staff and incentive programs. All costs are shown in Year 2001 dollars and do not account for the impacts of inflation.

A.4 Implementation and Oversight of the SR 520 TDM Plan

An adaptive management and performance-based approach will be used during implementation and oversight of the SR 520 TDM Plan. The program will be implemented through a corridor TDM and land use agreement as recommended in the first phase of the Trans-Lake Washington Study. A committee consisting of the signatory parties of the agreement (corridor jurisdictions, transportation and TDM providers) will oversee development of the corridor agreement and implementation of the program. A technical committee consisting of staff from corridor jurisdictions, TDM and transportation providers, and other TDM experts will provide support to the oversight committee. The technical committee will monitor and evaluate the performance of the program and provide implementation recommendations to the oversight committee. Major employers and non-public stakeholder groups will also be included in the implementation process.

The implementation plan for the SR 520 TDM Plan could include:

- A schedule of implementation including identification of "early action" items
- Roles and responsibilities of the various implementers of the program
- Administrative structure for the programs
- Framework to tie into the monitoring and oversight process in the corridor agreement
- Framework to integrate with existing local, regional and state TDM programs
- Framework to integrate with the I-405 or other corridor TDM plans

A.5 SR 520 Corridor TDM and Land Use Agreement

Development of the TDM and land use corridor agreement to implement the SR 520 TDM Plan will be coordinated with corridor jurisdictions and transportation and TDM service providers to provide a framework agreement that outlines the expected actions and commitments of the parties involved in implementation. The agreement could include:

- TDM goals for key activity areas within the SR 520 corridor
- A process to administer, update or modify the agreement or goals
- A process to monitor, assess and adjust implementation of the strategies to support attaining the goals
- Structure and oversight for the TDM plan